ABSTRACT OF THE DISCLOSURE

A power trading risk management system includes means for evaluating and inputting a predicted value of an electricity demand, an electricity price in a spot market, a cost function of a power generator to be used, a fuel price, a fixed cost and the like, means for modeling a random fluctuation of a future electricity price by use of a fluctuation of a past electricity price, means for calculating a profit accrued from electricity sale and the like, means for evaluating a risk accrued from a random fluctuation of the electricity price, means for producing an appropriate electricity portfolio, means for reevaluating a value of the portfolio on a daily basis, means for reorganizing the portfolio for risk reduction, and means for deciding a price of a financial derivative instrument for risk hedging. The system measures a market risk associated with a power trading, and produces the portfolio for maximizing a profit while maintaining the risk within a tolerance.